

REMARKS

By this amendment, claims 1-3 have been cancelled and claims 4-17 have been added. Thus, claims 4-17 are now active in the application. Reexamination and reconsideration of the application is respectfully requested.

The specification and abstract have been carefully reviewed and revised to correct grammatical and idiomatic errors in order to aid the Examiner in further consideration of the application. The amendments to the specification and abstract are incorporated in the attached substitute specification and abstract. For the Examiner's convenience, a copy of the marked-up original specification and abstract is also enclosed. The substitute specification includes the same changes as are indicated in the marked-up copy of the original specification. No new matter has been added. Entry of the substitute specification and abstract is thus respectfully requested.

In item 1 on page 2 of the Office Action, claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is believed moot in view of the cancellation of claims 1-3. Furthermore, new claims 4-17 have been carefully drafted to avoid the problems enumerated by the Examiner and to otherwise clearly comport with the requirements of 35 U.S.C. § 112, second paragraph.

In items 2-5 on pages 2 and 3 of the Office Action, claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Johnson (USP 4,446,634); and claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Cohen (USP 5,133,599). These rejections are also believed moot in view of the cancellation of claims 1-3. Furthermore, it is respectfully submitted that these rejections are clearly inapplicable to the new claims 4-17, for the following reasons.

With exemplary reference to the drawing figures, claim 4 sets forth a pair of golf shoes comprising: a shoe 10 having a sole 13 (e.g. Figs. 4C and 5C) including a rearward portion and a forward portion, the forward portion having an inside portion at one lateral side adapted to receive a big toe portion of a foot and an outside portion at the other lateral side adapted to receive a little toe portion of the foot (see Fig. 1A); an inflatable sealed bag 2 provided only at the outside portion of the forward portion of the sole 13 (see Figs. 1A, 4C and 5C), the inside portion of the forward

portion of the sole 13 having no inflatable sealed bag thereat (again see Fig. 1A); wherein the inflatable sealed bag 2 has an air port (e.g. vinyl tube 3) through which air can be injected to inflate the sealed bag 2; and wherein the sealed bag 2 is arranged at the outside portion of the forward portion of the sole 13 so that, when the foot is received in the shoe and the sealed bag 2 is inflated, the little toe portion of the foot is raised relative to the big toe portion of the foot (see Figs. 4C and 5C).

In contrast, the Johnson patent discloses a shoe 10 having shock-absorbing bladders 18, 20 at front and rear portions thereof (divided into first and second bladder portions 18A, 18B and 20A, 20B in Fig. 6) with conduits 48, 56 and valves 50, 58 communicating between the bladders 18, 20. Air can be pumped into the bladder via the ports 42A, 42B by the insertion of a needle using technique frequently employed for filling footballs, basketballs and the like (see line 65 of column 2-line 4 of column 3).

Thus, the Johnson patent does not disclose or suggest the provision of an inflatable sealed bag provided only at the outside portion of the forward portion of the sole, with the inside portion of the forward portion of the sole having no inflatable sealed bag thereat, as required by claim 4.

The arrangement of the present invention as recited in claim 4 is quite simple to use in that, in order to attain the advantage of having the outside portion of the forward portion of the sole (which is adapted to receive the little toe portion of the foot) raised during a golf swing, it is necessary only to activate a handpump 4 to inflate the sealed bag 2. Conversely, when it is desired to walk normally, the sealed bag can be deflated by simply operating a release valve 5. In contrast, in order to attain a similar effect with the Johnson arrangement of Fig. 6, it would be necessary first to pump air into the outside portion (e.g. 18A) of the rearward bladder 18, allowing the air to flow into the forward outside bladder portion (e.g. 20A) through the conduit 48, close the valve (e.g. 50) between the bladder portions 18A, 20A, and then release the air from the rear bladder portion 18A. In addition, the Johnson arrangement, which provides shock absorbing characteristics at various portions of the foot, has numerous additional components than the relatively simple arrangement of the present invention, thereby increasing the weight and cost of the shoe.

The Examiner cited the Cohen patent for teaching the provision of "a handpump (28) on a tongue of the shoe for inflating and deflating airbags." However, the Cohen patent provides no teaching or suggestion which would have obviated the above-discussed shortcomings of the Johnson patent.

For the above reasons, it is clear that the present invention as recited in claim 4 is not anticipated by the Johnson patent. Furthermore, it is believed clear that a person having ordinary skill in the art would not have been motivated to modify the Johnson patent or to make any combination of the references of record in such a manner as to result in or otherwise render obvious the present invention of claim 4. Therefore, it is respectfully submitted that claim 4, as well as claims 5-10 which depend therefrom, are clearly allowable over the prior art of record.

Independent claim 11 includes the same features as required by claim 4, but further specifies that only one of the two shoes of the pair of golf shoes is provided with a sealed bag. Thus, it is submitted that claim 11, as well as claims 12-17 which depend therefrom are clearly allowable over the prior art of record, for the same reasons as set forth above in support of claim 4.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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GOLF SHOES

BACKGROUND OF THE INVENTION

[0001] This invention relates to golf shoes with which a correct swing is possible.

[0002] Fig. 2A shows a position of a golfer 20 in the address position before making a swing, and Fig. 2B shows a state of the feet (shoes) as seen from ^{the} front. Further, Fig. 3 shows a golfer in backswing, Fig. 4A shows a golfer who is preparing a downswing, and Fig. 5A shows a state immediately before impact. Also, Figs. 4B and 5B are similar to Fig. 2B but schematically show the relation between the feet and the ground at ^{the time of Figs. 4A and 5A, respectively,} as in Fig. 2B. These figures show a right-handed golfer, and the following description is also for a right-handed golfer.

[0003] In an address position, as shown in Figs. 2A and 2B, a golfer 20 has his thighs slightly bent inwardly without stretching the knees 12L, 12R for both right and left legs 11L, 11R. At this time, the soles 13L, 13R of the golfer 20 are in surface-to-surface contact with the ground for both right and left feet as shown in Fig. 2B.

[0004] When a swing begins, until it reaches a top swing through a backswing shown in Fig. 3, the right knee 12R faces slightly inwardly as in the address position with the body weight mainly resting on the inner side (that

the
is, side of the big toe 14R) of the right foot 11R.

[0005] Then, when a downswing begins, as shown in Fig. 4A, the left waist, which has turned to the right, returns to the left, the heel of the left foot 11L, which has been slightly raised, lands on the ground while stepping in, and at the same time, the shoulder turns, so that the left knee 12L, which has displaced rightwardly, will return to the original position, so that the body weight begins to move onto the left foot 11L.

[0006] As shown in Fig. 5A, in the flow from the impact of the ball to the *completion of the swing*, most of the body weight rests on the left foot 11L, so that bracing on the side of the little toe 15L is especially required.

[0007] But as in the case of a senior golfer, when the lower half of the body is not strong, since the support by the knees is weak, particularly in the flow from the top swing to the impact (in downswing), while the body weight moves onto the left foot 11L, as shown in Figs. 4B and 5B, bracing on the side of the little toe 15L of the left foot 11L does not work, so that the side of the big toe 14L tends to float above ground. This makes it

impossible to make a *right correct* swing.

[0008] An object of this invention is to make it possible for particularly senior golfers whose lower half body has weakened to make a *right correct* swing during a downswing with the foot on the bracing side (that is, left foot for a right-

hander and right foot for a left-hander) stably in surface-to-surface contact with the ground.

SUMMARY OF THE INVENTION

[0009] According to this invention, there is provided golf shoes comprising a sealed bag provided at an area of a foot sole which becomes a fulcrum at a side for bracing during a period from a top swing to a *finish*, the sealed bag being arranged such that air can be injected thereinto and exhausted therefrom, whereby a portion corresponding to the area is raised by inflating the sealed bag by injecting air into it.

[0010] With this arrangement, when the golf shoes are put on with air injected into the sealed bag, during a downswing, since the portion of the fulcrum of the foot sole at a side for bracing rises by the inflation of the sealed bag, even when the body weight moves, the golfer can stand firm on the foot on the side for bracing by the rise of the portion at the fulcrum. Thus it is possible to *perform* a correct swing. Specifically, the portion of the fulcrum refers to the area including and adjacent the little toe.

[0011] When the swing finishes, by exhausting air in the sealed bag, the sealed bag becomes flat, so that normal walking is possible.

[0012] If, as means of injecting and exhausting air, a hand pump and a release valve are provided, compared with one in which these means are separate from the shoe, there is no possibility of losing them. Thus it is more convenient.

[0013] If the hand pump and the release valve are buried in a tongue, when air is injected or released, one can operate the pump and the release valve by pressing them with e.g. the tip of the grip of a golf club while standing, so that he does not have to bend down.

[0014] Other features and objects of the present invention will become apparent from the following description made with reference to the accompanying drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Fig. 1A is a schematic view of a golf shoe of this invention;

Fig. 1B is a side view of the same;

Fig. 2A shows a golfer in address position;

Fig. 2B shows the relation between the feet and the ground;

Fig. 3 shows a golfer in backswing;

Fig. 4A shows a golfer in downswing;

Figs. 4B and 4C show the relation between the feet

and the ground when hitting with conventional shoes on and with the golf shoes of the present invention on, respectively;

Fig. 5A shows a golfer in impact; and

Figs. 5B and 5C show the relation between the feet and the ground when hitting with conventional shoes on and with the golf shoes of the present invention on, respectively.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0016] Hereinbelow, an embodiment of this invention is described with reference to the drawings. Fig. 1A is a schematic view showing characterizing portions of a golf shoe 10 of this embodiment, and Fig. 1B is its side view.

[0017] As shown in these figures, a sealed bag 2 formed of a thin vinyl is fixed to the back of a midsole 1 kept in surface-to-surface contact with the sole of the shoe 10 at a portion corresponding to a region adjacent the little toe. The region adjacent the little toe is a portion which becomes a fulcrum for bracing when the body weight rests on the left foot during a downswing.

[0018] The sealed bag 2 is formed by superposing two thin vinyl plates 2a and bonding their perimeters together, and is adapted to inflate in the vertical direction (that is, thickness direction) as shown by ^{a two} one-dot chain line in

Fig. 1B when air is injected. One end of a vinyl tube 3 is connected to the sealed bag 2, and to the other end of the tube 3, a hand pump 4 for injecting air into the sealed bag 2 and a release valve 5 therefor are connected. The hand-push pump 4 and the release valve 5 are buried in a tongue 6.

[0019] When the shoe 10 is put on with the sealed bag 2 inflated by injecting air into it by means of the hand pump 4, the portion corresponding to the little toe will get raised.

[0020] When a driver is swung in this state, as shown in Figs. 4C and 5C, even when the body weight moves onto the side of the little toe 15L during downswing or at an impact, a raising of the portion of the little toe 15L due to inflation of the sealed bag 2 makes it possible to firmly stand on the left foot 11L (right foot 11R in the case of a left-hander). Thus, if other elements are complete, it is possible to ~~make~~ ^{perform} a ~~right~~ ^{correct} swing.

[0021] After the swing has finished, when air is released by operating the release valve 5 of the hand pump 4, the sealed bag 2 will reduce to the original thickness equal to the thickness of the two vinyl plates 2a forming it. Thus one can get the same feeling as when ordinary shoes are put on, and it will pose no problem whatsoever in traveling around a course.

[0022] In this embodiment, since the hand pump 4 and the

release valve 5 are provided at the portion of the tongue 6, one can inject air by pressing this portion with e.g. the tip of the grip of a golf club without stooping. Release of air, too, can be done in the same manner.

[0023] If one does not mind taking a stooping position, the position where the pump 4 and the release valve 5 are provided is not limited to the tongue 6, but they can be arranged at any portion of the shoe such as at the heel, side or instep.

[0024] Since the golf shoes of this invention are structured as described above, particularly for a golfer having a weakened lower body such as a senior golfer, by raising the area which becomes a fulcrum on the step-in foot side (adjacent the little toe) by inflating the sealed bag buried in the shoe, it is possible to stably set the step-in foot side. Thus it is possible to ~~make~~ ^{perform} a completion.

ABSTRACT OF THE DISCLOSURE

Golf shoes are proposed which make it possible for particularly senior golfers whose lower ~~half~~ body has weakened to ~~make~~ ^{perform} a correct swing during a downswing. A sealed bag formed of ~~X~~ vinyl is fixed to a portion of a midsole in surface contact with the ~~foot~~ sole of a shoe. A hand pump and a release valve are connected to the sealed bag through a vinyl tube. When the shoes are put on with the sealed bag inflated by injecting air into it by operating the hand pump, the portion of the little toe rises. When a swing is ~~made~~ ^{performed} in this state, even when the body weight moves at the time of a downswing or an impact, due to the rise of the portion of the little toe by inflation of the sealed bag, even a senior golfer can make a ~~right~~ ^{correct} swing by standing firm on his left foot. When air is released from the sealed bag, normal walking is possible.